

engaging the notched portion of the upper rail, substantially as shown and described.

No. 29,830. Pie Plate Lifter.

(*Manche de tourtière.*)

Amos L. Pomeroy, Sand Lake, N. Y., U. S., 7th September, 1898; 5 years.

Claim.—In a pie plate lifter, the combination, with a pair of lifter arms provided with coiled wire springs, of a supporting frame provided with wire-receiving eyes, and a pair of levers provided at one end with arm supporting guides, at the opposite end with operating handles, and intermediately with coil-supporting hubs, through which the levers are pivoted to the supporting frame, substantially as described.

No. 29,831. Mowing and Reaping Machine.

(*Faucheuse-motsonneuse.*)

William H. H. Heydrick, Philadelphia, Penn., U.S., 7th September, 1898; 5 years.

Claim.—1st. The guard finger B, with front projections G, and having the shoulders L and S thereon, in combination with the finger bar A, the rear end of said shoulder L projecting into a notch in the forward edge of the rocking ledger plate F, having a grooved channel in its under face, and its rear end projecting above the finger bar, and the cutter bar R with cutter C, the said cutter bar abutting against the rear end of the rocking ledger plate, substantially as and for the purpose set forth. 2nd. The combination of the several members enumerated in claim 1, with the bolt D and keeper E, substantially as described.

No. 29,832. Frame for Upright Pianos.

(*Boîte de piano droit.*)

Charles Bunce and Edwin H. Benedict, Brooklyn (assignees of Mary H. McDonald, administratrix of the estate of James McDonald, New York), N.Y., U.S., 7th September, 1898; 5 years.

Claim.—1st. A metallic frame for pianos, comprising in a single piece longitudinal parallel bars, proportioned in length to the length of the strings and in line with the strings, a marginal plate, hitch pins on said marginal plate, a continuous flange for the support of the sounding board, a hammer bridge, a top plate above the hammer bridge having an overhanging flange for the retention of the wrist plank, said top plate being formed with said parallel bars, which extend above the hammer bridge, and a down-bearing bar located above the hammer bridge, between it and said top plate, said down-bearing bar being connected to the bridge by intermediate brackets, substantially as set forth. 2nd. The metallic frame, having a supporting flange for the sounding board, in combination with the sounding board resting on said flange, wooden strips on the outer surface of the sounding board, and attaching screws extending through said flange and board and into said strips, substantially as set forth. 3rd. The metallic frame, having marginal plate or rung, the hitch pins thereon, and a supporting flange for the sounding board, in combination with the sounding board resting on said flange, and strips on said sounding board, which project outward beyond said marginal plate, whereby the strings press upon said strips, and hold said sounding board in place, substantially as set forth. 4th. The metallic frame, having in one piece longitudinal bars, hammer bridge, and top plate having an overhanging flange, said top plate being connected to said hammer bridge by said bars, whereby a space is formed between said top plate and bridge and in front of said bars, which is wide at one end and gradually narrows to the other end, over which space said flange projects, in combination with the wrist plank, which is inserted into said space, and which rests in front of said bars against said hammer bridge throughout its entire length, and which is held beneath said overhanging flange, substantially as set forth. 5th. The metallic frame, having hammer bridge, top plate having overhanging flange and connecting bars, in combination with the wrist plank between said hammer bridge and top plate, and resting on said bars, beneath said overhanging flange, blocks inserted between said bars and glued to the wrist plank, and a back piece behind the bars glued to said blocks, substantially as set forth. 6th. A metallic frame for a piano, comprising longitudinal bars proportioned in length to the length of the strings, a hammer bridge, and a top plate above the hammer bridge, connected therewith by the longitudinal bars, so that a place is left between them for the reception of the wrist plank, said space being widest at the treble end of the frame and gradually narrowing to the bass end, substantially as set forth.

No. 29,833. Washing Machine.

(*Machine à blanchir.*)

William H. Hornby, Toronto, and Lucas M. Lent, Ridgeway, Ont., 7th September, 1898; 5 years.

Claim.—1st. In a washing machine, the combination of the levers X, N, and L, with centre connection P and bearings of said levers in slots A, B, and C, also adjustable handles A, B, and rest blocks a, substantially as and for the purpose hereinbefore set forth. 2nd. The combination of the angle piece F, with pivot P, as specified, and the slot A and mortise a, in the upright of rubber, substantially as and for the purpose hereinbefore set forth. 3rd. In a washing machine, the tray or folding slide P, substantially as and for the purpose hereinbefore set forth.

No. 29,834. Method of Filling Secondary Battery Plates.

(*Manière de charger les plaques des batteries secondaires.*)

Henry G. Morris and Pedro G. Salom, Philadelphia, Penn., U.S., 7th September, 1898; 5 years.

Claim.—1st. The mode herein described, of forming secondary bat-

tery plates, said mode consisting in filling the cells or interstices of the grid with powdered active material, placing a uniform layer of said active material on one or both sides of the grid, and then compressing the surplus material into the cells of the grid. 2nd. The mode described of filling a secondary battery plate, said mode consisting in mounting the grid on a supporting plate, applying a retaining frame to the top of the grid, placing the active material in the cells of the grid, and piling it above the same, removing the surplus material until it is level with the top of the retaining frame, and then removing the latter, and compressing the surplus material into the cells of the grid. 3rd. The mode described of filling a secondary battery plate, said mode consisting in mounting the grid on a supporting plate, applying a retaining frame to the top of the grid, filling the cells of the latter with active material, and piling the latter above the same, removing the surplus material until it is level with the top of the retaining frame, then reversing the grid and repeating the operation on the other side of the same, and finally compressing the two layers of surplus material into the cells of the grid.

No. 29,835. Holder for Bed Covers.

(*Attache-couverture de lit.*)

Maud C. Murray, Bardonia, Ky., U.S., 7th September, 1898; 5 years.

Claim.—The herein described attachment, composed of the rod, the attaching straps at the ends of the rod, whereby the latter may be readily attached and detached by hand without the use of a screw-driver or similar implement, the holding straps secured to the rod at intermediate points, and the fastener at the outer ends of the holding straps, for connecting the same with the covers, substantially as set forth.

No. 29,836. Telephone Transmitter.

(*Transmetteur téléphonique.*)

The Bell Telephone Company, (assignee of Charles W. Warren), Montreal, Que., 8th September, 1898; 15 years.

Claim.—1st. In a telephone transmitter employing granulated conducting material as the current carrying medium, the combination, of a vibratory diaphragm having free edges, with a vertically mounted elastic granulation containing cell, comprising a vertical metal back plate, a rigid non-conducting annular side wall, an elastic and yielding metal front plate acting as an auxiliary vibrating diaphragm, a mass of granulated conducting material enclosed between the said plates and thereby included in an electric circuit, a centrally perforated metal gland clamping the same, and a rod attached to the centre of the said front plate and passing through the central perforation of the gland to a mechanical connection with the outer diaphragm, whereby the vibrations of the outer diaphragm are transmitted to the front plate of the said cell and to the granulations, substantially as described. 2nd. The combination, substantially as hereinbefore described, of the compound granular carbon button comprising a mass of granulated carbon enclosed between a rigid metal plate, and an elastic and centrally vibrating metal plate, the said plate being separated electrically by a rigid non-conducting ring with an external vibrating diaphragm, the said compound button being mounted vertically in proximity to the vibratory diaphragm, the centre of the button being approximately opposite to the centre of the said diaphragm, and the centres of the vibrating diaphragm, and the elastic front plate of the button being mechanically united by a rod, whereby the vibrations of the former are transmitted to the latter, as described. 3rd. In a telephone transmitter, the combination, with a vibratory diaphragm loosely supported in a ring seal, and adapted to receive sound waves, of a hollow button supported opposite thereto having an elastic metal front plate serving as an auxiliary diaphragm, a rigid metal back plate separated electrically therefrom by a ring of hard rubber, and carbon granulations interposed in the chamber thus formed, and a rod attached to the centre of the auxiliary diaphragm and in contact with the main diaphragm, so that the vibrations of the latter may be communicated to the former, both diaphragm and hollow button being vertically mounted, substantially as hereinbefore described. 4th. In a granular carbon transmitter, the compound containing cell and contents, comprising an external cylinder, a rigid metal back plate closing one end of said cylinder constituting one electrode of the said cell, and centrally perforated for the introduction of the granulations, a rigid and non-elastic ring within the external cylinder and in contact with the said rear wall, and forming the non-conducting side wall of said cell, an elastic metal front plate supported by said ring and clamped at its edges by a metal ring, and a screw gland closing the other end of the external cylinder, whereby the said elastic plate is fixed opposite to the back plate, the central portion thereof being free to vibrate, granular carbon interposed between the said plates, and a screw plug closing the central aperture of the back plate for the purpose of retaining the carbon therein. 5th. The combination of an ordinary Blake transmitter case, diaphragm, and adjusting lever and screw, with the hereinbefore described granulation containing cell, the granulations being contained between a rigid back plate and a centrally elastic front plate, forming electrodes of an electric circuit separated electrically at their edges by a rigid and non-conducting ring, in such a manner as to form a shallow chamber for the reception of said granulations, the said cell being suitably mounted upon the central portion of the adjusting lever opposite the central portion of the Blake diaphragm, and the front plate or auxiliary diaphragm thereof being provided with a light rod attached to its centre, and projecting outwardly therefrom to a delicate but permanent mechanical contact with the centre of the main diaphragm, whereby the vibrations of the latter are communicated to the former, for the purpose specified. 6th. The combination, with the vibratory diaphragm and adjusting lever of a Blake transmitter, of a compound granular carbon button mounted upon the centre of the said lever, so that its centre is in the same horizontal plane as the centre of the said diaphragm, the said button comprising a carbon granulations enclosed between a rigid back electrode, and a vibratory elastic front electrode clamped at its edge and adapted to serve as an auxiliary diaphragm, the said electrodes being separated by a non-elastic and non-conducting ring, and means, as indicated, for pro-